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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/270,688	03/16/99	YOUNG	D 2407-0004

EXAMINER

CADUGAN, E

ART UNIT	PAPER NUMBER
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QM12/0919
SIXBEY, FRIEDMAN, LEEDOM & FERGUSON
8180 GREENSBORO DRIVE SUITE 800
MCLEAN VA 22102

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No.	Applicant(s)	
	09/270,688	YOUNG ET AL.	
	Examiner	Art Unit	
	Erica E Cadugan	3722	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 July 2001* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3,4 and 6-29* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 3, 4, 6-29* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

15) ☐ Notice of References Cited (PTO-892)
16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
18) ☐ Interview Summary (PTO-413) Paper No(s). ____ .
19) ☐ Notice of Informal Patent Application (PTO-152)
20) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 13, as best understood, is rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,088,864 (Yanagida). Yanagida teaches a system for making customized objects utilizing a "station" that has chair 10 to support a person being measured (Figure 2 and column 3, lines 34-37). The system utilizes a contour measuring means 1 which can utilize a "laser light beam cutting method" to measure an object to be measured, e.g., a person's face, by displacing the laser light beam relative to the person's face (column 5, lines 48-65). A series of three-dimensional cutting machines 3 are in communication with the scanning station (Figures 1 and 2) such that the scanned data is sent to a computer for processing, and then the data is subsequently used to control the cutting machine to cut the scanned shape (column 6, lines 23-36 and Figure 1). Note that the limitations regarding the "shoe insole" and "foot" in claim 13 are functional recitations, and that Yanagida's device is capable of carrying out these functions, i.e., there's no reason why Yanagida's device could not be used to scan a foot or to produce a custom insole (particularly note column 5, lines 36-40). Also note that a recitation of the

intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1, 4, 6, and 7-29, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,449,256 (Sundman) in view of U.S. Patent No. 5,712,803 (Garuet-Lempirou). Sundman teaches a system for use in an office environment for milling custom shoe insoles, where this system includes a foot contour measurement machine (column 1, lines 42-43) and a mill 10 for machining the insoles. The mill has a disk drive 15 for receiving the foot contour measurement data, which then controls the x, y, and z, movements of the milling head 21 to produce a desired insole contour (column 5, lines 27-34). To mill the insole, an insole blank 11 is mounted to a

support tray 12. The relative motion in x, y, or z directions between the milling cutter and the insole blank may be achieved by moving the insole blank/tray, and/or by moving the milling head (column 3, lines 25-37). Motion of the milling head 21 and/or the motion of the tray 12 is controlled by stepper motors 51, 55, and 510 that act in response to the data inputted from the contour measurement machine. Sundman's milling station also includes a particle control system with positive-pressure air flow (column 7, lines 39-41) generated by fans, so that particles may be collected in tray 14 and disposed of. The air and the particles flow through channels 67-69, which, being enclosed and having higher pressure than that of the outside air, constitute plenums. The entrance 62 to these plenums is disposed in the vicinity of the milling assembly (column 7, lines 61-62). The velocity of the air flow through each channel is inversely proportional to the volume of air flowing through each channel (column 8, lines 35-41). The air flow velocity is sufficient to eliminate particulate flux from the milling cavity (column 7, lines 45-48). According to the current application on page 7, line 24, the velocity of the air flow must be low enough to grab the debris particles, which Sundman's velocity is. Sundman does not teach a laser scanner to scan the foot, but instead teaches a device having an array of parallel pins, each pin displaceable longitudinally such that when a foot is pressed against the pins, the longitudinal displacement of the pins represents the contour of the foot. Sundman also does not teach that the computer (with disk drive 15) is located in a lower portion of the milling machine stand, but instead teaches that it is located approximately

in the middle portion of the stand (see Figure 1A). Garuet-Lempirou teaches a device for scanning the sides and undersurface of a foot 4 (Figure 1) that is set on transparent glass base 40 (Figure 1 and column 5, lines 57-58, and column 1, lines 62-63). Garuet-Lempirou's device utilizes laser-generating sensors (column 2, lines 30-32 and column 3, lines 16-17 and 31-37) Ca1 through Ca4 (column 4, line 52 and Figure 1). The sensors are attached to a cradle 2 that moves in translation along longitudinal foot axis 4 (column 5, lines 65-67 and Figure 1). The cradle 2 has vertically-extending sides connected by a horizontally-extending portion, and is shaped so that the vertically-extending sides are outside of the width of base 40 and that the horizontally-extending portion is below base 40 (Figure 1 and column 6, line 41). Thus, regarding claim 14, the sensors disposed on the cradle beneath the base 40 are movable beneath the base 40 (see Figure 1 and column 6, lines 39-44). Regarding claim 16, the plane or "fan" of laser light extends through the transparent base 40 as just described. Also regarding claims 16 and 18, Garuet-Lempirou's "transparent material" or "glass" for base 40 inherently includes tempered safety glass (column 5, lines 57-58, and column 1, lines 62-63). Regarding claim 19, note that the sensors or "laser scanning units" Ca1 through Ca4 are disposed so as to be movable along the sides and base (Figure 1). Regarding claim 21, the entire scanning device of Garuet-Lempirou (shown in Figure 1) acts as an input device for inputting information about the customer, i.e., the three-dimensional map of the customer's foot, to a signal processing system 3 having display Visu (Figure 2 and column 5, lines 7-10, 16-

18, and 25-37). Garuet-Lempirou further teaches that the data acquired via the foot-scanning device may be supplied to and used to control automatic processing devices (column 6, lines 30-35). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have replaced the longitudinal-pin-type foot contour measurement machine taught by Sundman with the laser scanning foot contour measurement device taught by Garuet-Lempirou for the purpose of being able to acquire three-dimensional foot data that takes into account the entire measured surface area rather than just the selected points where the longitudinal pins of Sundman's device contact the foot, thus increasing the accuracy of the measured foot data, thus allowing a better fitting shoe insole to be manufactured. Regarding the placement of the control device in the milling stand, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have placed this control device wherever was desired or expedient, particularly since moving the device from the middle portion of the stand to the lower portion of the stand would not affect the operation of Sundman's device, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

5. Claim 3, as best understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,449,256 (Sundman) in view of U.S. Patent No. 5,712,803 (Garuet-Lempirou) as applied to claim 1 above, and further in view of Applicant's admission of prior art (AAPA) on page 8, lines 11-15. Sundman and Garuet-

Lempirou disclose all of the elements as claimed as described above, except that the laser is non-focused. In the specification on page 8, lines 11-15, Applicant admits that the specifics of the laser technology used in the laser scanners is known in the art. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have scanned the necessary portions of the foot with a non-focused "fan-shaped" line of laser light as this is known laser technology according to AAPA, and thus little trouble-shooting would be involved in using a known technology.

6. Claims 1, 7-16, and 20-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,237,520 (hereinafter White) in view of U.S. Patent No. 5.449,256 (hereinafter Sundman). White discloses a system for forming custom footwear products, including insoles (column 3, line 45), where the system includes a scanning station 134 that has an optical scanning head 160 that slides in track 162 to scan the undersurface of a foot (column 7, lines 34-36) when the foot is placed on a reference surface 170. Scanning the foot produces a three-dimensional topographical image of a foot undersurface (column 5, lines 6-8). The scanning unit 134 may be a laser-optic scanner (column 5, lines 45-47). The optical scanning head scans the undersurface of the foot through reference surface 170. Therefore the reference surface 170 is transparent. It is therefore inherent that reference surface 170 is made of tempered safety glass, because the benefits of tempered safety glass are well-known. This scanning unit 134 may be in communication with a computer control means in the form of a CAD/CAM machine

(column 3, lines 49-60) that receives and processes the scanned foot data, and then communicates the processed data to a production machine 112 to produce a custom footwear product, such as an insole (column 3, line 45). White's system includes a display 122 and an input device 126 for entering and displaying customer information (for example, column 9, lines 42-46). White generically teaches the use of a production machine 112 to produce custom footwear products. White does not specifically teach a three-axis milling machine to mill custom shoe insoles, nor does White teach the specific orientations of the computer, display device, input device, or production machine. White's production machine, however, is at a separate location from the scanning device (column 3, lines 64-66), and thus there is a lag time between when a person's foot is scanned, and when that person receives their custom footwear product.

Sundman teaches a system for use in an office environment for milling custom shoe insoles, where this system includes a foot contour measurement machine (column 1, lines 42-43) and a mill 10 for machining the insoles. The mill has a disk drive 15 for receiving the foot contour measurement data, which then controls the x, y, and z, movements of the milling head 21 to produce a desired insole contour (column 5, lines 27-34). To mill the insole, an insole blank 11 is mounted to a support tray 12. The relative motion in x, y, or z directions between the milling cutter and the insole blank may be achieved by moving the insole blank/tray, and/or by moving the milling head (column 3, lines 25-37). Motion of the milling head 21 and/or the motion of the tray 12 is

controlled by stepper motors 51, 55, and 510 that act in response to the data inputted from the contour measurement machine. Sundman's milling station also includes a particle control system with positive-pressure air flow (column 7, lines 39-41) generated by fans, so that particles may be collected in tray 14 and disposed of. The air and the particles flow through channels 67-69, which, being enclosed and having higher pressure than that of the outside air, constitute plenums. The entrance 62 to these plenums is disposed in the vicinity of the milling assembly (column 7, lines 61-62). The velocity of the air flow through each channel is inversely proportional to the volume of air flowing through each channel (column 8, lines 35-41). The air flow velocity is sufficient to eliminate particulate flux from the milling cavity (column 7, lines 45-48). According to the current application on page 7, line 24, the velocity of the air flow must be low enough to grab the debris particles, which Sundman's velocity is.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have substituted Sundman's milling machine that operates in response to collected foot contour data for the production machine taught by White, for the purpose of being able to produce custom shoe insoles while a customer waits, and thus eliminating the lag time between the time the customer's foot is scanned and the time they receive their custom shoe insoles. It would further have been obvious to one having ordinary skill in the art at the time the invention was made to have moved the computer disk drive of the milling station, taught by Sundman, to the lower portion of

the milling station, and to have placed the display device and the input device, taught by White, near the milling station, and to have placed the milling assembly, taught by Sundman, in an upper portion of the milling station, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

7. Claims 1, 3-4, and 6, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over White and Sundman as applied to claim 1 above, and further in view of Applicant's admission of prior art on page 8, lines 11-15. White and Sundman disclose all of the elements as claimed in claims 1-4 and 6, as described above, except for the following: the specific step of directing a line, particularly a non-focused fan-shaped line of laser light along the undersurface of the foot, and scanning the undersurface of the foot using a plurality of laser scanning units. In the specification on page 8, lines 11-15, Applicant admits that the specifics of the laser technology used in the laser scanners is known in the art. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have scanned the necessary portions of the foot with a line, or specifically, a non-focused fan-shaped line of laser light. It would further have been obvious to one having ordinary skill in the art at the time the invention was made to have used multiple laser scanners to scan the undersurface of the foot instead of just one, as taught by White, since it has been held that constructing a formerly integral

structure in various elements involves only routine skill in the art. *Nerwin v. Erlichman*, 168 USPQ 177, 179.

Response to Arguments

8. Applicant's arguments filed July 12, 2001 have been fully considered but they are not persuasive.

Applicant's arguments regarding the Yanagida reference (U.S. Patent No. 5,088,864) fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references. Note that as described in the above rejection of claim 13 based on Yanagida, the limitations regarding the "shoe insole" and "foot" in claim 13 are functional recitations, and that Yanagida's device is capable of carrying out these functions, i.e., there's no reason why Yanagida's device could not be used to scan a foot or to produce a custom insole (particularly note column 5, lines 36-40 which teaches that a portion of the body or the whole body could be scanned). Also note that a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235

(CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963). Applicant has not set forth what language in the claim (emphasis added) would preclude Yanagida's device from being used as set forth in the claim. While applicant asserts that "Applicants respectfully submit that there are structural differences" (applicants arguments, page 4, last paragraph), it is unclear what these structural differences between the invention as set forth in claim 13 and Yanagida's invention are alleged to be.

Additionally, also regarding Yanagida, applicant asserts that "[i]t is unclear among other things, how the chair 10 of Yanagida that can be turned to the left, right, and/or raised up/down to adjust its position so that the face could be centered on the centerline of the monitor could be employed to support a foot so that its undersurface could be scanned", it is unclear what the fact that Yanagida's chair can be maneuvered in the described way has to do with whether it can support a foot. It is unclear why it would not be possible for a person to maneuver the chair to a desired height or location and support their leg in such a position that the foot could be scanned with the laser beam scanning technique described in the above rejection of claim 13.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "transmitting contour data via other means other than a disk" as set forth in applicant's arguments filed July 12, 2001, page 5, third full paragraph) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations

from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Also note that the use of other devices for transmitting data are known in the art, as described in, for example, previously cited U.S. Patent No. 5,452,219 (Dehoff et al.), which teaches that

> "[i]t is to be understood that the interconnections between the laser digitizer 10 and the CAD/CAM computer 20 and between the CAD/CAM computer 20 and the machine tool 30 are represented by arrows and not specifically shown. These interconnections may take the form of a cable or the manual transfer of data from machine to machine."

Regarding applicant's assertion that "[w]ith respect to the Garuet-Lempirou reference, which discloses a method for measuring an object through a transparent wall using a laser-based system, there is a reference to collecting measurement data but not to how measurement data are provided to a processor and a milling machine for making a custom-made insole", it is again noted that applicant has not pointed out how the reference in question differs from the claim language. In the instant case, in the method claims, applicant is claiming the step of "transmitting", but has not claimed any structure which transmits that would differ from either the disk of Sundman (U.S. Pat. No. 5,449,256) described by applicant, or the processing taught by Garuet-Lempirou (U.S. Pat. No. 5,712,803) in column 6, lines 30-35 and described in the above rejections based thereon. In the apparatus claims of the present invention, again, there is no transmitting structure provided. Although the claims are interpreted in light of the specification,

limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In response to applicant's argument that there is no suggestion to combine the references, (applicant's arguments filed 7/12/01, page 6, lines 2-5) the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, as set forth in the above rejection of claim 3 based on Sundman in view of Garuet-Lempirou and Applicant's Admission of Prior Art (AAPA) on page 8, lines 11-15, the combination of Sundman in view of Garuet-Lempirou provides the teaching of using lasers to scan a foot, but does not specifically teach that the lasers are unfocused. However, if the laser technology used in the instant invention is known in the art as set forth in AAPA on page 8, lines 11-15, then one of ordinary skill in the art would be aware of the benefits of using this specific laser technology wherever generic laser technology is used. Thus, as described in the above rejection of claim 3 based on Sundman, Garuet-Lempirou, and AAPA, one of ordinary skill in the art would have known to have substituted the specific "non-focused fan shaped line of laser light" for the generic "plane of laser light" taught by the combination

of Sundman and Garuet-Lempirou for the purpose of using a known laser technology that would thus involve little trouble shooting. Similarly, in response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Applicant's has asserted that

> "White does not teach suggest, or imply the step of milling a custom-made insole based on transmitted surface coordinates, passing at least one laser scanning unit along an undersurface of a foot, or scanning the undersurface of the foot with the at least one laser scanning unit by directing at least one line of laser light along the undersurface as recited in independent claim 1. Further, White does not teach, suggest, or imply a system for forming custom-made insole that includes a scanning station having at least one moveable laser scanning unit for determining coordinates of an undersurface of the foot, at least one milling station in communication with the scanning station, and having a milling assembly for forming custom-made insole, and control means for controlling the operation of the milling assembly based upon the coordinates determined by the laser scanning unit as recited in independent claim 13."

Examiner agrees that, as described in the above rejection based thereon, "White does not specifically teach a three-axis milling machine to mill custom shoe insoles". However, note that the rejection in question is based on a combination of references, and

that White (U.S. Pat. No. 5,237,520) was not relied upon to teach this feature. Regarding the "passing at least one laser scanning unit along an undersurface of the foot", as described in the above rejection, White teaches a scanning station 134 that has an optical scanning head 160 that slides in track 162 to scan the undersurface of a foot (column 7, lines 34-36) when the foot is placed on a reference surface 170. Scanning the foot produces a three-dimensional topographical image of a foot undersurface (column 5, lines 6-8). The scanning unit 134 may be a laser-optic scanner (column 5, lines 45-47). The optical scanning head scans the undersurface of the foot through reference surface 170. If applicant is implying that White's "laser-optic scanner" is not used to determine coordinates of an undersurface of a foot, as set forth in the preceding office action, applicant's attention is directed to column 5, lines 6-8, as described in the above 103 rejection based thereon. Applicant's attention is also directed to column 6, lines 22-32, which outlines the step of the central computer 120 determining coordinates of the foot (e.g., "Preferably, those portions of the scanned foot image which have been determined to be closest to the scanner 134 surface by central computer 120 ..."). Additionally, White teaches that the foot measurement information is transferred to a CAD/CAM machine 110 which "electronically receives the scanned feet data" and "from the received data the CAD/CAM machine 110 generates machine control code" (column 3, lines 49-60, as described in the above 103 rejection). Inherently, the CAD/CAM machine must be

receiving foot coordinate information of some sort in order to generate machine control code based on the electronically-received "scanned feet data".

Applicant has also asserted that

> "Sundman does not teach or suggest passing at least one laser scanning unit along an undersurface of a foot, or scanning the undersurface of the foot with the at least one laser scanning unit by directing at least one line of laser light along the undersurface, as recited in independent claim 1, or a scanning station having at least one moveable laser scanning unit for determining coordinates of an undersurface of the foot, at least one milling station in communication with the scanning station and having a milling assembly for forming custom-made insoles, and control means for controlling the operation of the milling assembly based upon the coordinates determined by the laser scanning unit, as recited in independent claim 13."

Examiner agrees that Sundman does not teach a laser scanning unit. However, note that the rejection in question is based on a combination of references, and that Sundman (U.S. Pat. No. 5,449,256) was not relied upon to teach this feature. Regarding applicant's other assertions set forth above with respect to the Sundman reference, applicant's attention is directed to the above rejection based on White in view of Sundman, which describes how Sundman teaches a foot contour measurement machine (column 1, lines 42-43) and a mill 10 for machining the insoles. The mill has a disk drive 15 for receiving the foot contour measurement data, which then controls the x, y, and z, movements of the milling head 21 to produce a desired insole contour (column 5, lines 27-34). To mill the insole, an insole blank 11 is mounted to a support tray 12. The relative motion in x, y, or z directions between the milling cutter and the insole blank may

be achieved by moving the insole blank/tray, and/or by moving the milling head (column 3, lines 25-37). Motion of the milling head 21 and/or the motion of the tray 12 is controlled by stepper motors 51, 55, and 510 that act in response to the data inputted from the contour measurement machine.

Applicant has also asserted that "the arguments set forth above regarding White and Sundman are also applicable to this rejection of claims 1, 3-4, and 6". Examiner's response to these arguments would equally apply to claims 1, 3-4, and 6.

Conclusion

10. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

11. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erica Cadugan whose telephone number is (703) 308-6395. The examiner can normally be reached on Monday through Thursday from 7:30 a.m. to 5:00 p.m, and every other Friday from 7:30 a.m. to 4:00 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, A.L. Wellington can be reached at (703) 308-2159. The fax number for TC 3700 is (703) 305-3579. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 3700 receptionist whose telephone number is (703) 308-1148.

ec

September 17, 2001

A. L. WELLINGTON
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700